



## बी.पी. कोईराला स्वास्थ्य बिज्ञान प्रतिष्ठान, धरानको

### कोटेशन माग गरिएको सुचना

(सुचना प्रकाशित मिति २०८०/०२/२९)

यस प्रतिष्ठानलाई आवश्यक तपशिलका उल्लेखित **Portable Ultrasound Machine** कोटेशनको माध्यमबाट खरिद गर्नुपर्ने भएकोले इजाजत प्राप्त प्रतिष्ठानमा सुचिकृत फर्म, संस्था, कम्पनीबाट अद्यावधिक फर्म दर्ता प्रमाणपत्र, मु.अ.कर दर्ता प्रमाणपत्र, आ.व.२०७८/०७९ को कर चुक्ताको प्रमाणपत्र प्रतिहरु संलग्न गरी यो सुचना प्रकाशित मितिले ७ दिन भित्र कोटेशन पेश गर्नुहुन सुचित गरिन्छ । माग गरिएको कोटेशन तोकिएको म्यादभित्र प्रतिष्ठानको दर्ता चलानी फाँटमा दर्ता गर्नुहुन वा [quotation.procurement@bпкиhs.edu](mailto:quotation.procurement@bпкиhs.edu) मा email मार्फत पेश गर्नुपर्नेछ ।

SN.	Product Name	Qty.	Unit
1	Portable Ultrasound Machine with Pediatric & Neonatal Echo Probe	1	Nos

### Technical Specifications for Portable Ultrasound Machine

S. N.	Purchaser's Specifications	Bidder's Offer		
	Portable Ultrasound Machine with pediatric and neonatal Echo probe			
	Manufacturer			
	Brand			
	Type/ Model			
	Country of Origin			
I.	Description of Functions & System Configurations	Yes / No	Remarks	Page no. In brochure / datasheet
1.1	Should be top of the line and State of the Art fully digital portable ultrasound machine with provision for Doppler examinations.			
1.2	The unit should have a laptop type console design. The unit should be compact, lightweight and portable. Weight should not exceed 7.0 kg including battery (excluding cart and accessories) with quick boot of 30 seconds.			
1.3	Provided with high quality, compact stand with lockable wheels and trolley should be having three probe connectors from the same company.			
1.4	It should be suitable for abdominal, peripheral and central Access, Cardiac Vascular, Thoracic, Transcranial, Musculoskeletal, Urological, Small Parts, pediatric and neonatal patient.			
1.5	Multiple preloaded as well as user configurable application presets should be available.			
1.6	The system should have advanced measurement, manual and automatic for all applications.			
1.7	The system should have windows as operating system and support all the applications(dual imaging,split screen,contrast enhancement, auto gain .)			
1.8	System should support transducer technologies like phased array, convex, linear, micro convex and 4D volume .			
1.9	The system should have minimum 100000 or more digital processing channels and 256 or more grey shades			
1.10	Minimum scanning depth to be 30 cm or more.			
1.11	The system to have a dynamic range of 250 decibels or more.			
1.12	The system should have a frame rate of at least 600 frames per seconds (fps) in B mode and more than 300 fps in Color mode.			
1.13	The Systems should have cine loop review facility of not less than 60 sec/1000 frames.			
1.14	The system should have an integrated high resolution TFT / LCD of 15 inches (flicker free images) or more.			
1.15	System should have both Triplex and Duplex display and a wide range of probes, increases system versatility and			



	adaptability to our clinical needs.			
1.16	In built battery backup, should be at least 60 minutes or more.			
1.17	System should be upgradable to Panaromic Imaging and 3D software in future.			
1.18	System should be upgradable to 3D/ 4D imaging			
1.19	System should have capability to compare the current exam to the previous exam			
1.20	System should have stain elastography			
1.21	System should have continuous optimization the images when scanning different tissues			
1.22	System should have onboard contextual reference tool			
1.23	System should have capability for auto EF and stress echo			
<b>II.</b>	<b>Imaging Modes, Controls and Measurements</b>			
2.1	Imaging modes of Real time 2D, Colour, Pulsed wave, Continuous Wave and Power (energy) Doppler , Anatomical M-Mode should be available.			
2.2	Controls for 2D mode: Total gain, depth, TCG, dynamic range, acoustic power output.			
2.3	Controls for Colour Doppler: PRF, colour gain, position and size of ROI, steering of ROI, colour maps and colour invert.			
2.4	Controls for pushed Doppler: variable sample volume size from 1 to 5mm or more, steer, PRF, baseline, gain angle correction, spectral invert duplex on/off.			
2.5	Measurements for 2D mode: Multiple distances, area and volume.			
2.6	Measurement for Doppler modes: Stenosis quantification in area percentage, Diameter, PSV, EDV, means, PI, RI, acceleration time and index. Automatic and manual measurements and display of pulsed Doppler calculations should be possible.			
<b>III.</b>	<b>Transducers &amp; Accessories</b>			
3.1	All transducers should be lightweight digital phased array broadband type transducers.			
3.2	Should be supplied with three transducers (one each)			
3.3	Linear probe transducer 4-10 M Hz +/-1			
3.4	Convex Probe 2- 5MHz +/- 1			
3.5				
3.6	Phased Array Transducer for Neonatal & Paediatric Cardiac 4-8Mhz.			
3.7	Thermal Printer with atleast 100 pcs of thermal paper			
3.8	Docking Cart			
<b>IV.</b>	<b>Applications</b>			
4.1	Convex Probe for abdominal imaging.			
4.2	Linear transducer for Small Parts			
4.3	Phased Array/Adult Echo Probe			
4.4	Convex and linear transducers shall have detachable reusable biopsy guides for different gauge needles			
4.5	Provision for inter-switch ability between the transducers without the need of manual disconnection			
4.6	Availability of Needle recognition Imaging			
<b>V.</b>	<b>Data Mangaement &amp; Printing</b>			
5.1	System should have 200 GB or higher capacity internal HDD.			
5.2	The system should have the facility of digital storage and retrieval of B/W and colour image data.			
5.3	Provision for USB port and LAN transfer of data should also be present.			
5.4	The system shall support the all DICOM functionality, Storage, Print, and Work List, also ready to connect to PACS.			
<b>VI.</b>	<b>Operating Environment</b>			
6.1	The product offered should be designed to be stored and operate normally under the condition of purchaser country ( Electrical & Environmental Conditions)			
<b>VII.</b>	<b>Standard Certificate</b>			
7.1	The unit must be both United States Food and Drug Administration (FDA) and Conformity Europeans (CE) approved			
7.2	Bidder should provide the latest manufacturer authorisation letter			



7.3	Should comply to EN/IEC60601-1, EN/IEC60601-2-24 and EN/IEC60601-1-2			
<b>VIII. Warranty/Guarantee</b>				
8.1	Minimum 2 years comprehensive warranty/guarantee including Transducers.			
8.2	Commitment letter from the Bidder as well as from the manufacturer regarding the availability of parts, transducers, accessories and service support for minimum 10 years.			
8.3	Frozen rate of comprehensive maintenance contract must be quoted which will be applicable after the expiry of warranty/guarantee and which should not exceed 5% of the bid value.			
<b>IX. Service/Maintenance</b>				
9.1	The Bidder must provide Quarterly preventive service/maintenance of the machine during warranty/guarantee period.			
9.2	The Bidder must provide free of cost any software upgradation, if required for atleast 10 years. Letter of same must be submitted along with the bid documents.			
9.3	If Bidder fails to provide service/maintenance on time, double the period of non-functionality of machine shall be added to the warranty period. Letter of same must be submitted along with the bid documents.			
<b>X. Installation &amp; Commissioning</b>				
10.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
10.2	The machine supplied must be brand new with the date of manufacture and the country of origin should be mentioned clearly.			
<b>XI. User Training</b>				
11.1	Extensive Repair & Maintenance training and operational training to the Hospital's Biomedical Engineer, Biomedical technicians and End Users at company's authorized training center. Letter of same must be submitted along with the bid documents.			
11.2	Hands on Training of atleast 15 days to Doctor's and Nurses for operational, calibration, safe use, day to day routine check up and maintenance etc for the proper use of the supplied portable USG machine.			
<b>XII. Documentation</b>				
12.1	User (Operating) and Service manual in English must be made available			
12.2	List of important spare parts and accessories with their part numbers and costing.			
12.3	Certificate of calibration and inspection from factory.			
12.4	Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. All the letter asked must be submitted. Failure in doing so will lead to rejection of bid from technical committee.			